Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended)   An imaging system ~~(15a)~~ arranged to reduce an artifact in a three-dimensional reconstructed volume comprising a plurality of planar images, said imaging system comprising

[[-]] an image artifact ~~reduction means (20)~~reducer arranged to ~~subsequently~~ process said planar images ~~(51)~~ with a first corrective image ~~(52)~~ for eliminating a first source of structured noise ~~(16)~~ in said images—, thereby producing a gain corrected image, and arranged to apply a second corrective image ~~(54)~~ to the gain corrected image for eliminating a second source of structured noise ~~(14)~~ in said images.

2. (Currently amended)   ~~An~~ The imaging system ~~(15a)~~ according to claim 1, wherein

[[-]] the first corrective image ~~(52)~~ comprises a first gain correction data ~~(43)~~; and

[[-]] the second corrective image ~~(54)~~ comprises a second gain

correction data (45).

3. (Currently amended)   An The imaging system (15a) according to claim 2, wherein:

[[-]] the first gain correction data (43) comprises a result of an averaging of a plurality of raw images of a gain calibration scan (41); and

[[-]] the second gain correction data (45) comprises a result of an averaging of a plurality of raw images (41) of the gain calibration scan after them beingthe plurality of raw images of the gain calibration scan is processed by means ofutilizing the first corrective image (52) and an unwarping function is applied to the processed first corrective image.

4. (Currently amended)   An The imaging system (15a) according to claim 1, the image being acquired by means of an image intensifier (1d), wherein the first source of noise comprises a noise of an output screen (16) of the image intensifier and the second source of noise comprises a noise of an input screen (14) of the image intensifier.

5. (Currently amended) ~~An~~ The imaging system according to claim 4, wherein the first corrective image ~~(52)~~ comprises a drift correction data ~~(53b)~~ arranged to correct for a movement of a projection of the output screen of the image intensifier ~~on a projection means (18)~~ during a rotational scan.

6. (Currently amended) ~~An~~ The imaging system according to claim 1, wherein the imaging system is an X-ray examination apparatus ~~(10) comprising an imaging system according to claim 1~~.

7. (Currently amended) A method for reducing an artifact in a three-dimensional reconstructed volume comprising a plurality of planar images, said method comprising the steps of:

[[-]] processing the image ~~(51)~~ using a first corrective image ~~(52)~~ to eliminate a first source of structured noise in the image yielding a first-stage corrected image ~~(53)~~;

[[-]] processing the first-stage corrected image ~~(53)~~ with a second corrective image ~~(54)~~ to eliminate a second source of structured noise in the image.

8. (Currently amended) A method according to claim 7, wherein

[[-]] the first corrective image (52) comprises a first gain correction data (43), said first corrective image being constructed for a raw image of a gain calibration scan (41);

[[-]] the second corrective image (54) comprises a second gain correction data (45), said second corrective image being constructed for the raw image of the gain calibration scan (41) after it beingthe raw image of the gain calibration scan is processed by means of the first corrective image (52) and an unwarping function.

9. (Currently amended) A method according to claim 8, wherein:

[[-]] the first gain correction data (43) comprises a result of an averaging of a plurality of raw images of the gain calibration scan (41);

[[-]] the second gain correction data (45) comprises a result of an averaging of a plurality of raw images of the calibration object (41) after them being the raw image of the gain calibration scan is processed by means of the first corrective image (52) and an unwarping function.

10. (Currently amended) A computer program (40) arranged to carry

~~out the steps of the method according to claim 1~~stored on a computer readable memory medium, the computer program being arranged to reduce an artifact in a three-dimensional reconstructed volume comprising a plurality of planar images by processing the planar images with a first corrective image to eliminate a first source of structured noise in the images, thereby producing a gain corrected image, and to apply a second corrective image to the gain corrected image to eliminate a second source of structured noise in the images.